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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/437,619	11/10/1999	DORIAN BIRSAN	12991(CA998-	8229

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RICHARD L CATANIA ESQ
SCULLY SCOTT MURPHY AND PRESSER
400 GARDEN CITY PLAZA
GARDEN CITY, NY 11530

EXAMINER

STONE, JONATHAN D

ART UNIT	PAPER NUMBER
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2178

DATE MAILED: 02/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/437,619

Applicant(s)

BIRSAN ET AL.

Examiner

Jonathan D Stone

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. This action is responsive to communications: Application filed on 11/10/1999.
2. Claims 1-31 are pending in the case. Claims 1, 14, 15, 16, 29, and 31 are independent claims.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. *Claims 1-2, 7-11, 13, 15-17, 22-26, and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Percival et al (herein Percival; USPN 6226652 – filing date 9/5/1997) in view of Kramer (USPN 6216140 – filing date 9/17/1997) and in further view of Maslov (USPN 6466240 – filing date 4/2/1999, priority date 7/8/1998).*

5. **Regarding independent claim 1**, Percival discloses comparing two different versions of files (abstract; compare with “*comparing the...modified file;*”). Percival discloses combining the files for presentation to a user (col 1, ln 41-49; compare with “*providing...modified files;*”). The differences between the files are highlighted on a user interface (col 3, ln 59-62 and fig 3-9; compare with “*highlighting...modified files.*”).

6. Percival does not explicitly disclose providing a tree structure to a user. However, Kramer teaches the merging of hierarchies of items and the creation of difference lists to

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discover any discrepancies between versions. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the inventions of Percival and Kramer to be able to present the merged information being compared in a hierarchical format. Such a combination would have presented certain users with a graphical display more familiar to them, thereby making the invention easier to use.

7. Percival and Kramer do not explicitly disclose comparing elements of a structured file. However, Maslov teaches the display of a structured document in a hierarchical format, enabling a user to modify elements via a tree display. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Percival and Kramer to enable the comparison of structured documents and their display in tree structures. This modification would have given users a wider range of data to be able to compare, thereby increasing the user's ability to manage different versions of data.

8. **Regarding dependent claim 2**, Percival teaches resolving differences by selecting data or merging several data sources with selection and modification (abstract).

9. **Regarding dependent claim 7**, Maslov teaches the display of a tree structure (fig 1).

10. **Regarding dependent claim 8**, Maslov teaches displaying a tree structure of a structured document in one window and the document itself in an adjacent window (fig 1). However, Percival teaches displaying a number of different scenarios, including a split-merge view that displays both of the data versions adjacent to each other with an additional pane displaying

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merged data. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Maslov and Percival to display the different element versions in a split screen with the tree structure adjacent to the element panes. This would have given the user the ability to see all the data at once to better determine how differences ought to be resolved.

11. **Regarding dependent claim 9**, Maslov teaches displaying a tree structure and the base document where both panes are always synchronized (col 4, ln 31-42). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention discloses in the rejection of claim 8 in order to synchronize all three panes to display the appropriate selected element if it exists in each file. This would have enabled the user to better search and browse the versions and note differences between the two, thereby enabling the user to better determine how differences ought to be resolved.

12. **Regarding dependent claims 10 and 11**, the use of ID and name attributes associated with an element was known and typical at the time of the invention. ID and name attributes were known and typical in all arts dealing with data structures, these attributes being a simpler and more readable method of uniquely representing data. It would have been obvious to one of ordinary skill in the art at the time of the invention to use these known means to compare two elements. This would have provided a method that would have most likely been faster (comparing an ID instead of content) for comparisons.

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13. **Regarding dependent claim 13**, the use of XML as a structured markup language was known and typical in the art at the time of the invention. The inclusion of XML in addition to the disclosed represented languages in Maslov (HTML, SGML; abstract) would have been obvious to one of ordinary skill in the art at the time of the invention. This would have increased the breadth of the invention.

14. **Regarding independent claims 15 and 16**, the claims incorporate substantially similar subject matter as claim 1, and are rejected along the same rationale.

15. **Regarding dependent claims 17, 22-26 and 28**, the claims incorporate substantially similar subject matter as claims 2, 7-11, and 13, respectively, and are rejected along the same rationale.

16. **Regarding independent claim 29**, the claim incorporates substantially similar subject matter as claim 1, and is rejected along the same rationale. Percival, Kramer, and Maslov do not explicitly disclose the use of a parser to produce a parse tree output for subsequent comparing and merging. However, the use of a parser in Maslov's invention is inherently taught when transforming a structured text to a graphical tree. One of ordinary skill in the art at the time of the invention would have realized that a parser would have been necessary to transform the text of a structured document by placing elements of the document into the hierarchical nodes of a tree.

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17. **Regarding dependent claim 30**, Maslov teaches displaying a tree structure (fig 1).

Claims 3-6, 18-21, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Percival in view of Kramer and Maslov and in further view of Bloom (USPN 3711863 – filing date 1/21/1972).

18. **Regarding dependent claim 3**, Percival, Kramer, and Maslov do not explicitly disclose indicating if differences are new, changed, or removed. However, Bloom teaches an invention for comparing files that determines and marks accordingly a section of data that is a deletion (removed), an addition (new), or a modification (changed; col 2, ln 1-13). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Percival, Kramer, and Maslov with the teaching of Bloom. Such a combination would have given a user a more conspicuous indication as to what difference results the invention found and would have made choosing the appropriate action to resolve the difference easier.

19. **Regarding dependent claims 4-6**, Percival teaches resolving differences between two different versions of files. Percival discloses a resolving method that uses user input to select a version for resolving a difference (col 5, ln 14-30). In the invention of the combination of references from the rejection of claim 4, selecting a version to resolve a “new” difference would have either used the new element or not used the new element. Likewise, selecting a version with a “removed” or “changed” element would have either implemented the difference of the selected version, or would have maintained the status of the other version. Percival also discloses a Merge Target button that merges the different versions.

20. **Regarding dependent claims 18-21**, the claims incorporate substantially similar subject matter as claims 3-6, and are rejected along the same rationale.

21. **Regarding independent claim 31**, the claim incorporates substantially similar subject matter as claim 1, and the rejection of claim 1 is fully incorporated herein. Maslov teaches a hierarchical structure that contains a plurality of nodes, each node corresponding to an element of a structured document (abstract, fig 1). Percival, Kramer, and Maslov do not explicitly disclose indicating at each node if the node is new, changed, or removed. However, Bloom teaches an invention for comparing that determines and marks accordingly a section of data that is a deletion (removed), an addition (new), or a modification (changed; col 2, ln 1-13). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Percival, Kramer, and Maslov with the teaching of Bloom. Such a combination would have given a user an easier indication as to what difference results the invention found and then choose the appropriate action to resolve the difference.

Claims 12 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Percival in view of Kramer and Maslov and in further view of Reed et al (herein Reed; USPN 5862325 – filing date 9/27/1996).

22. **Regarding dependent claim 12**, the use of XML as a structured markup language was known and typical in the art at the time of the invention. The inclusion of XML in addition to the disclosed represented languages in Maslov (HTML, SGML; abstract) would have been

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obvious to one of ordinary skill in the art at the time of the invention. This would have increased the breadth of the invention.

The use of ID and name attributes and Uuids associated with an element was known and typical at the time of the invention. ID and name attributes and Uuids were known and typical at the time of the invention in data structure-related arts. The attributes were a simpler and more readable method of uniquely representing data. Reed teaches the common use of a Uuid for unique global representation of data (col 25, ln 8-11). It would have been obvious to one of ordinary skill in the art at the time of the invention to use these known means to compare two elements. This would have provided a method that would have most likely been faster (comparing an attribute instead of content) for comparisons.

The use of other tags, and the concatenation thereof, as comparators would have also been obvious to one of ordinary skill in the art at the time of the invention. The most obvious source for a comparison would have been the value or content of the element itself. The use of tags and attributes as comparison means would have been beneficial in providing a faster comparison method.

23. **Regarding dependent claim 27**, the claim incorporates substantially similar subject matter as claim 12, and is rejected along the same rationale.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Percival in view of Kramer and Maslov and in further view of Souder et al (herein Souder; USPN 5806074 – filing date 3/19/1996).

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24. **Regarding independent claim 14**, the claim incorporates substantially similar subject matter as claim 1, and is rejected along the same rationale. Percival, Kramer, and Maslov do not explicitly disclose the comparison of data structures. However, Souder teaches resolving conflicts (i.e. differences) between data structures. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention disclosed by Percival, Kramer, and Maslov to also perform its functions on hierarchical data structures. This modification would have given users a wider range of data to be able to compare, thereby increasing the user's ability to manage different versions of data.

25. Prior art made of record and not relied upon is considered pertinent to disclosure.

Ogawa	U.S. Patent No. 5438661	issued 8/1/1995	filed 9/23/1994
Brodersen et al	U.S. Patent No. 6367077	issued 4/2/2002	filed 8/19/1999

Conclusion

26. Any inquiry concerning this communication from the examiner should be directed to Jonathan Stone, who can be reached by telephone at (703) 305-7854. Normal contact times are M-F, 8-5:30.

Upon an unsuccessful attempt to contact the examiner, the examiner's supervisor, Heather Herndon, may be reached at (703) 308-5186.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist, whose telephone number is (703) 305-3900.

27. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

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Or faxed to:

(703) 746-7239 (for formal communications intended for entry)

or:

(703) 746-7238 (for after-final communications)

Hand-delivered responses should be brought to

Crystal Park II, 2121 Crystal Drive
Arlington, VA, Fourth Floor (receptionist).

Jonathan D. Stone 2/11/03


HEATHER R. HERNDON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100